

Work Order ID 98851

March-27-13 7:50:51 AM

98851

PRELIMINARY ISSUE

Page 1

Item ID: D4789-5

Accept

N900040100

Setup Start

NS1

Revision ID: PRELIM

Item Name: Bushing

Stop

NS2

Start Date: 3/27/13 Start Qty: 20.00

20

Cust Item ID:

Required Date: 4/10/13 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan: ML5

Date: 13-03-27 Tooling:

Date:

Run Start

NR1

QC:

Date: SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4789

PAS

100

0.00

100

Hardinge CNC LATHE SMALL

Hardinge

Memo

0.00

Hardinge CNC Lathe Small

1-TURN AS PER FOLIO FB172 & DWG D4789,

FOLIO REV: N/A

DWG REV: PAS

2-DEBURR AS REQUIRED

13-03-27

20

0

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

13-03-27

20

0

Work Order ID 98851

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Page 2

Item ID: D4789-5

Accept

N900040100

Setup Start ***NS1***

Revision ID: PRELIM

Stop ***NS2***

Item Name: Bushing

Start Date: 3/27/13 Start Qty: 20.00

20

Cust Item ID:

Required Date: 4/10/13 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 <i>2.30</i> <i>B.3 27</i>				<i>20</i>			<i>Inspected on per Dwg PAS</i>
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: _____ Memo	0.00 0.00							
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

POSITIVE RECALL
EFFECTIVE 5/3/27 AUTH W
RELEASED _____ DATE _____

~~MATERIAL CERTIFICATION
REQ'D UPON DELIVERY~~

WME
13-4-02

Picklist . rint

March-27-13 7:50:56 AM

Page 1

Work Order ID: 98851

98851

Parent Item: D4789-5

D4789-5

Parent Item Name: Bushing

Start Date: 3/27/13

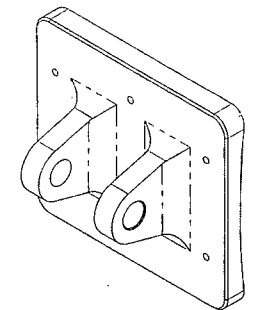
Required Date: 4/10/13

Start Qty: 20.00

Required Qty: 20.00

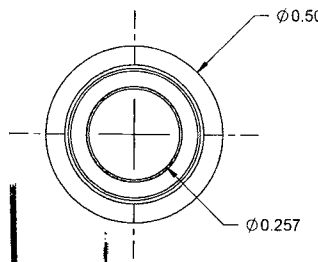
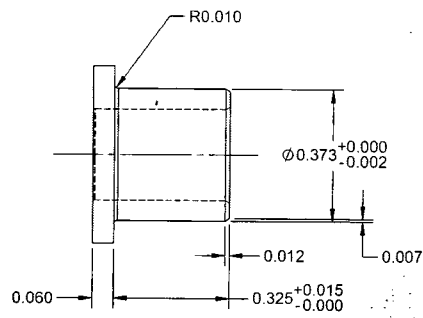
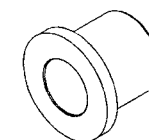
Comments: IPP REV:A NEW ISSUE 13-03-03 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R0.500		Purchased	No			100	f	57.6237	0.0333	0.701053			
M303R0 500									**	1.125'		13-03-27	
303 Round Bar 0.500"													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT028		57.62370000							
				124081		1E-09							
				124711		57.6237							
										1.125'			



DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>BC</i>	DRAWING NO.	REV. PA5
MFG. APPR.		D4789	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		CLEVIS	NTS
DATE	13.03.02	COPYRIGHT © 2013 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS LOANED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON/ORGANIZATION WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

98857



D4789-5 BUSHING

PRELIMINARY ISSUE

13.03.02

NOTES:

- 1) MATERIAL: AISI 303/304/316 SS ROUND BAR
ASTM A582 OR ASTM A276
REF DART SPEC M303R OR M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 006 4.1
- 7) WEIGHT: 0.01 lbs

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DL	DRAWING NO.	REV. PA5
MFG. APPR.		D4789	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		CLEVIS	NTS
DATE	13.03.02	<small>COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

Receiving Report

Date:

13/2/25

Batch No:

M64711

Supplier:

MECAUCASTLE

Dart P/O:

19108

Packing Slip:

Yes

☒

No

☐

Invoice:

Yes

☐

No

☒

Receipt:

Cash

☐

Cr

☒

Release Note Attached:

Yes

☒

No

☐

N/A

Waybill Attached:

Yes

☒

No

☐

N/A

Shipment Complete:

Yes

☒

No

☐

N/A

QC6 Inspection

☒

0.5

16

13/2/25

N/A

Work Order

☐

16

13/2/25

N/A

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
M303R0500		96	0	0	96	
M303B25W0200	- 12	12	0	0	12	

Initials of receiver (if shipment OK)

Level 12

Production/Admin:

Date

Received/Costing

Initial

13/2/25

Location

All amounts are calculated in domestic currency.

All Item ID/GL/WOs All Rec. Employees All Currencies

Grouped by Vendor ID

[illegible]

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:1650807

Ship From: A. M. Castle & Co. TORONTO - CASTLE METALS 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 21-FEB-2013	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN		BOL No 1650807-2	

Shipment Details	Final Destination Branch - TOR
-------------------------	---------------------------------------

Order No	Line No	Item No	Description				
2703471	1	14154	0.5000.RD.303.STAINLESS.CF.ANN.132.0000-156.0000 SPECIFICATIONS: ASTM A582				
Purchase Order No		Part Number		Ordered Qty		Invoice Qty	
19105				96.00 FT		96.6667 FT ✓	
Details							
Delivery No.	Mill	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
118428259	NORTH AMERICAN STAINLESS	E7H5		8		145.0000	64.5733

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date:

Name:



**NORTH AMERICAN
STAINLESS**

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 801420 15	Mail To: A.M. CASTLE AND COMPANY 1420 KENSINGTON ROAD-SUITE 220 OAK BROOK IL 60523	Ship To: A.M. CASTLE AND COMPANY 3400 NORTH WOLF ROAD FRANKLIN PARK IL 60131	Date: 1/13/2013 Page: 1 Of 1
Customer: 0032 001			Steel: 303
NAS Order: LN 92670 1			Finish: Cold Draw
Your Order: 201008	Item Code: 14154		Dia/Thk: .5000 in
			Leg Length:
			Length: 144.00 in
			Corrosion:

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
ASTM A582/13 EN 10204 3.1, ASTM A484/11
AMS 5640U TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN

REMARKS:

COMPLIES W/REQUIREMENTS OF DPMR 252.225-7014A-1 EU DIRECTIVE
2002.95.EC.ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

8/3/2/26

Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight
BF12850	2069								

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/08

Heat	Supplier #	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
E7H5		US	.040	.10	17.38	.36	1.89	.32	.034	8.52	.032	.3375
			SI %									
			.47									

Castle Metals PP

HEAT NUMBER 6745

MECHANICAL PROPERTIES

	1 d	HB	2YS	UTS	RA	Elong	
	o i	No.	KSI	KSI	%	% 2"	
BF12850	R L	160.0	75.90	106.94	23.14	14.05	

MECHANICAL ID

ITEM CODE 14154

LOT NUMBER

PO NUMBER 201008

RECEIPT DATE 1-13-13

SUPPLIER NAS

SPECIFICATION

LCS

COMMENT

APPROVED

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS

Technical
Dept. Mgr.

ERIC HESS



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO19105

Purchase Order Date 2/15/13

PO Print Date 2/15/13

Page Number 1 of 2

Order From : VC-MET001

METAUX CASTLE
A.M. CASTLE & CO. (CANADA) INC. - C/O 910720
P.O. BOX 4090 STN A
TORONTO, ON M5W 0E9
CA

Contact Name
Vendor Phone 514 694 9575
Vendor Fax 514 695 3281
Vendor Account Nbr

Buyer Chantal Lavoie
Requisition Nbr
Tax Resale Nbr 10127-2607
Terms Net 30
Currency CAD
FOB Destination-Collect

Ship To : DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
C213/03/13

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M303R0.500	303 Round Bar 0.500"	2/25/13 Yes	✓ 96.00 f 96.6667 Yours ppd		\$1.6700	\$160.32
		Special Inst:	MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE				
2	M303R0.313	303 ROUND BAR .313	2/25/13 Yes	✓ 12.00 f 12.0633 Yours ppd		\$3.2300	\$38.76
		Special Inst:	MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE				
3	M303R1.000	303 Round Bar 1.00	2/25/13 Yes	96.00 f 96.6667 Yours ppd		\$6.2900	\$603.84

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required - YES NO

Change Nbr: 1

Change Date: 2/15/13



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO19105

Purchase Order Date 2/15/13

PO Print Date 2/15/13

Page Number 2 of 2

Order From :

VC-MET001

METAUX CASTLE
A.M. CASTLE & CO. (CANADA) INC. - C/O 910720
P.O. BOX 4090 STN A
TORONTO, ON M5W OE9
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

514 694 9575

514 695 3281

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

Special Inst:

MATERIAL: AISI 303 SS ROUND BAR AS
PER ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

4

M303B2.500X2.000

303 BAR 2.5" X 2"

3/05/13

Yes

12.00

f

Yours ppd

\$127.6200

\$1,531.44

Special Inst:

MATERIAL: AISI 303 SS BAR AS PER
ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

PO Total:

\$2,334.36

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 2/15/13

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required - YES NO